What is claimed is:

1. A laser comprising:

a gain medium emitting an optical beam having a wavelength, the optical beam being emitted along an optical path in a resonant cavity;

at least one tuning element optically coupled with the gain medium, the at least one tuning element defining at least one passband in the optical path of the optical beam; and

a tuning circuit effecting modulation of an optical path length of the laser, detecting intensity variations in the optical beam resulting from the modulation, and adjusting the optical path length to adjust the wavelength of the optical beam in accordance with a relationship between the modulation and the detected intensity variations.

2. The laser of Claim 1, wherein the tuning circuit further comprises:

an optical path length modulator to modulate the optical path length with a modulation signal thereby generating intensity variations in the optical beam within the at least one passband; and

an optical path length adjuster to adjust the optical path length to minimize the intensity variations in the optical beam resulting from the modulation signal.

3. The laser of Claim 2, with at least one of the optical path length modulator and the optical path length adjuster is integral with the gain medium.

4. The laser of Claim 2, wherein the optical path length modulator and the optical path length adjuster are integral with one another and responsive to the modulation signal to modulate the optical beam and responsive to an error correction signal to adjust the optical path length to minimize intensity variations in the optical beam.

5. The laser of Claim 2, further comprising:

a retro reflector defining a distal end of the resonant cavity, the optical path length adjuster being formed integral with the retro reflector to vary an optical path length of the laser to minimize the intensity variations in the optical beam.

6. The laser of Claim 2, further comprising:

a detector to detect the intensity variations in the optical beam and to generate an intensity signal proportional thereto;

a phase detector to detect the phase error between the modulation signal and the intensity signal and to output an error signal corresponding thereto; and

the optical path length adjuster further responsive to the error signal to adjust the optical path length of the laser to minimize the intensity variations in the optical beam.

7. The laser of Claim 6, with the phase detector further operable to detect the phase error between the modulation signal and the intensity signal at a selected harmonic.

8. The laser of Claim 1, with at least one of a frequency and an amplitude of the modulating of the tuning circuit selected to increase the coupling efficiency of the optical beam with a communication medium by spreading a line width of the optical beam.

9. The laser of Claim 1, wherein the at least one tuning element comprises at least one of:

a grid generator to generate a first set of passbands aligned with the center wavelengths of a number of channels of a selected wavelength grid; and

a channel selector to select the channels to which to tune the optical beam by generation and tuning of at least a second passband with the first set of passbands.

10. The laser of Claim 9, with at least one of the grid generator and the channel selector integral with the gain medium.

11. The tunable laser of Claim 9, wherein the grid generator and the channel selector further comprise at least one of a Fabry-Perot filter, a diffraction element, an interference element and a birefringent element.

12. The tunable laser of Claim 9, wherein the channel selector includes at least one of: a Pockels cell, a Kerr cell, a solid etalon, a gap etalon, a wedge-shaped solid etalon, a wedge-shaped gas etalon.

13. The tunable laser of Claim 9, wherein the channel selector includes at least one of a tunable length and a tunable index of refraction.

14. The laser of Claim 9, wherein the channel selector generates a second set of passbands within the selected wavelength grid and vernier tunes the second set of passbands with the first set of passbands to select the channels to which to tune the optical beam.

15. The tunable laser of Claim 14, wherein the vernier tuning of the channel selector is effected by a selected one of: a mechanical actuator; a thermal actuator, an

electro-optical actuator, and a pressure actuator to vernier tune the second set of passbands.

16. A method for tuning a laser comprising the acts of:

defining at least one passband in the optical beam in the resonant cavity;

modulating an optical path length of the laser;

detecting intensity variations in the optical beam within the at least one passband resulting from the modulating act; and

adjusting the optical path length of the laser to minimize the intensity variations detected in the detecting act.

17. The method of Claim 16, wherein the defining act further comprises the acts of:

filtering the optical beam to exhibit a first set of passbands substantially aligned with the corresponding channels of the selected wavelength grid; and

tuning the optical beam to at least a selected one of the first set of passbands.

18. The method of Claim 17, wherein the tuning act further comprises the acts of:

filtering the optical beam to exhibit a second set of passbands within the wavelength grid; and

vernier tuning the second set of passbands with the first set of passbands to select channels at which to tune the optical beam emitted by the gain medium.

19. The method of Claim 16, wherein the modulating act further comprises the act of:

modulating the optical path length at a frequency selected to increase the threshold for Stimulated Brillouin Scattering (SBS) in the optical coupling of the gain medium with an optical fiber.

20. The method of Claim 16, wherein the adjusting act further comprises the acts of:

detecting a phase error between the modulating in the act of modulating and the intensity variations detected in the act of detecting intensity variations; and

adjusting the optical path length of the resonant cavity to minimize the phase error.

21. The method of Claim 20, with the act of detecting a phase error effected at a selected harmonic.

22. A laser comprising:

means for defining at least one passband in the optical beam in a resonant cavity;

means for modulating an optical path length of the resonant cavity;

means for detecting intensity variations in the optical beam within the at least one passband resulting from the modulating act; and

means for adjusting the optical path length of the resonant cavity to minimize the intensity variations detected in the detecting act.

23. The laser of Claim 22, wherein the means for defining further comprises:

means for filtering the optical beam to exhibit a first set of passbands substantially aligned with the corresponding channels of the selected wavelength grid; and

means for tuning the optical beam to at least a selected one of the first set of passbands.

24. The laser of Claim 23, wherein the means for tuning further comprises:

means for filtering the optical beam to exhibit a second set of passbands within the wavelength grid; and

means for vernier tuning the second set of passbands with the first set of passbands to select channels at which to tune the optical beam emitted by the gain medium.

25. The laser of Claim 22, wherein the means for modulating further comprises:

means for modulating the optical path length at a frequency selected to increase the threshold for Stimulated Brillouin Scattering (SBS) in the optical coupling of the gain medium with an optical fiber.

26. The laser of Claim 22, wherein the means for adjusting further comprises:

means for detecting a phase error between a modulating effected by the means for modulating and the intensity variations detected by the means for detecting; and

means for adjusting the optical path length of the laser to minimize the phase error.

27. The laser of Claim 26, with the means for detecting a phase error effected at a selected harmonic.